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Comparative Transportation Cost Analysis in East Africa

Executive Summary

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Contents

Foreword

A number of East African countries continue to face severe deterioration in their sea/port, road, rail, and air transport networks. In the main ports, the infrastructure is so limited and outmoded that it has failed to keep pace with growing traffic demands. As a consequence, the subregional transport system is often being used beyond capacity, insecure, costly, and considered unreliable to meet growing national and regional needs, as well as projected future requirements.

Using data and information based on transport costs and issues from the two main sea ports of Mombasa and Dar-es-Saalam to selected destinations, this study presents a comparative cost analysis (with emphasis on total transportation costs to the shipper) of in-country and intercountry transport costs for various transit and landlocked countries in East Africa.

In light of the interrelationship between the cost and efficiency of the transportation network, and the cost, timeliness, and state of delivery of cargo, especially agricultural cargo, it is imperative that the shipper have access to options for transporting merchandise rather than having to opt for a particular mode (although it may be more expensive) only because no other choice exists. Further, over the past few decades, the East African region has suffered frequent severe droughts that have threatened national and regional food security. Food shortages have been further complicated by continued structural grain deficits caused by the poor, insecure, and high cost transport system.

With more cost effective and secure modes of transportation, the cost of transporting grain from rural, agricultural regions to cities and other urban areas will be cheaper and food affordability could be enhanced, thus assuring a key element of food security. Additionally, with cheaper and more secure transportation, food aid supplies are more certain to reach their rural destinations than would otherwise be the case. The region's exports—mostly bulk agricultural items—are also more likely to be transported effectively and efficiently, thereby minimizing spoilage and enhancing incomes.

In view of the widespread economic benefits of using least-cost transportation, this study is timely and intuitive. The author's discussion of the major underlying issues in regional transit traffic, as well as the major cost components, is detailed and informative.

This study finds and recommends that in order to make transit traffic more cost effective in East Africa and routes and modes more competitive, additional investment on the basis of both existing and projected traffic levels should be made within the framework of donor-supported regional projects, and coordinated at that level. This approach reinforces the enormity and broad-based nature of the problem, as well as the need for cost sharing on an issue that will yield collective regional benefit if designed and implemented appropriately.

This report is one in a series of studies on Africa's regional trade and agricultural comparative advantage, a joint activity of the USAID Africa Bureau's Food Security and Productivity Unit in the Office of Sustainable Development, Productive Sector Growth and Environment Division (AFR/SD/PSGE), and the Regional Economic Development Services Office for East and Southern Africa (REDSO/ESA).

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For the provision of data on which much of this study is based, special thanks to Kenya Railways Corporation, Tanzania Railways Corporation, Uganda Railways Corporation, Kenya Ports Authority, and Tanzania Harbors Authority. We are grateful to officials of customs departments in the region, clearing and forwarding agencies and regional transporters for their cooperation and valuable information used in this study.

Glossary of Acronyms and Abbreviations

ACIS	Advance Cargo Information Services
ABD	African Development Bank
AFR	Bureau for Africa (USAID)
AMI	Agence Maritime Internationale
ANR	Office of Agriculture and Natural Resources (REDSO/ESA)
BIF	Bond in Force
BP	British Petroleum
BUJ	Bujumbura
CBS	Central Bureau of Statistics
CDO	Customs Documentation Officer
CFA	Clearing & Forwarding Agents
CIF	Cost, Insurance and Freight
CMB	Coffee Marketing Board (Uganda)
COMESA	Common Market for Eastern and Southern Africa
CR	Clean Report of Findings
CTLA	Central Transport Licensing Authority
CTL	Commercial Transaction Levy
DANIDA	Danish International Development Agency
D&DOs	Declaration & Disposal Order
DWT	Dead Weight Ton
EAC	East Africa Community
EACA	East Africa Cooperation Agreement
EACL	East African Conference Lines
EARC	East African Railway Corporation
EARH	East Africa Railways and Harbors
EC	European Community
ECA	Economic Commission for Africa
EDF	European Development Fund
EEC	European Economic Community
ESAL	Equivalent Standard Axle Loads
FCL	Full Container Load
FOT	Free on Truck
GDP	Gross Domestic Product

GoK	Government of Kenya
HGVs	Heavy Goods Vehicles
HT	Harbor Ton
ICD	Internal Container Depot
IDA	International Development Agency
IGOs	Inter-Governmental Organizations
IRP	Integrated Road Program
IRR	Internal Rate of Return
JKIA	Jomo Kenyata International Airport
KBO	Kagera Basin Organization
KBY	Kemondo Bay
KENATCO	Kenya National Transport Company
KPA	Kenya Ports Authority
KPC	Kenya Pipeline Corporation
KRC	Kenya Railways Corporation
KTA	Kenya Transport Association
LCL	Less than Full Container Load
LLCs	Landlocked Countries
LPG	Liquified Petroleum Gas
MoCW	Ministry of Communication & Works
MoWTC	Ministry of Works, Transport and Communication
MPRO	Mombasa Port Release Order
MTI	Ministry of Trade and Industry
NASACO	National Shipping Agencies Company
NCTA	Northern Corridor Transit Agreement
OAU	Organization of African Unity
OSCARO	Operational Simplified Costing for African Railways
OTRABU	Organization Transportes Regionaux Au Burundi
PSGE	Productive Sector Growth and Environment Division (USAID/AFR/SD)
POL	Petroleum, Oil and Liquids
PTA	Preferential Trade Area
RCTD	Road Customs Transit Declaration
REDSO/ESA	Regional Economic Development Support Office, Eastern and Southern Africa (Nairobi)
RMVACs	Regional Motor Vehicle Allocation Committee
RETCOS	Regional Transport Companies
RRP	Railway Restructuring Program

SD	Office of Sustainable Development (USAID/AFR)
SGS	Societe Generalle du Surveillance
SATCC	South African Transport Coordinating Conference
STIR	Societe des Transportes Internationaux due Rwanda
TAFFA	Tanzania Association of Freight Forwarders
TAN	Tax Assessment Notice
TEU	Twenty Foot Equivalent Unit
THA	Tanzania Harbors Authority
TLA	Transport Licensing Authority
TLB	Transport Licensing Board
TRC	Tanzania Railways Corporation
TSC	Tanzanian Shippers Council
TTCA	Transit Transport Coordination Authority
TAZARA	Tanzania / Zambia Railway Authority
UCTU	Uganda Cooperative Transport Union
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
URA	Uganda Revenue Authority
URC	Uganda Railway Corporation
USAID	United States Agency for International Development
VAT	Value Added Tax
VDS	Vessel Delay Surcharge
ZBRU	Eastern Zaire, Burundi, Rwanda and Uganda

1. Comparative Transportation Cost Analysis in East Africa

INTRODUCTION

This study presents a comparative cost analysis of in-country and intercountry transport costs for the countries in the East African region, namely Kenya, Tanzania (the transit countries) Uganda, Rwanda and Burundi (the landlocked countries). For the landlocked countries, the study identifies the current transit transportation routes and presents an analysis of the financial and economic costs associated with each route for different types of cargo. The analysis is undertaken against the objectives of the landlocked countries with regard to transit traffic, which include the development of low cost transit transport routes and their diversification to enhance transit security, and against the objectives of food security of the countries in the region.

The data and information presented in the report concentrate on transportation costs and issues from the two main sea ports of Mombasa and Dar-es-Salaam to selected destinations in route, and/or the main destinations in the landlocked countries, namely Kampala, Kigali and Bujumbura. The analysis emphasizes road, rail and lake transport that have been identified as the major transport modes in cargo haulage in the region.

The analysis focuses on the total transportation costs to the shipper, rather than the freight costs charged by operators of the transport modes used. The costs to the shipper are identified as comprising port handling charges, clearing and forwarding charges, inland freight charges and the indirect costs related to transit times that are quantified on the basis of the opportunity costs of the capital tied for the "longer than normal" transit times prevalent in the region. Finally the cost analysis considers a whole range of official and unofficial costs that are particularly relevant to road transport in the region but that are payable by transport operators, and as a result indirectly increase the shipper's costs. It is considered that even partial elimination of these costs could reduce the overall transportation costs for the shipper.

HISTORICAL TRANSPORT PERSPECTIVE

The regional transport industry in East Africa is centered at the ports of Mombasa and Dar-es-Salaam. The major transit routes in the region, particularly the railway lines, were constructed with the aim of shipping agricultural raw materials to the coastal ports for transshipment to markets in Europe. The intra- and intercountry functions of the railway, road and lake systems developed much later, when opportunities for domestic and regional trade became significant. The Northern and Central Corridors, which simply comprised the rail and road infrastructures linking Mombasa and Dar-es-Salaam to the landlocked countries, developed over time from the two ports.

The port of Mombasa has over the years handled more imports and exports from the region than did the port of Dar-es-Salaam. While the rail network in the Northern Corridor was responsible for much of the Uganda traffic, Kenyan based road transporters were the major beneficiaries of the concentration of transit traffic at the port of Mombasa, providing almost exclusively the transit capacity to Rwanda, Burundi and eastern Zaire.

Similarly the railway connection between the port of Dar-es-Salaam and Kigoma on Lake Tanganyika was the principal route in the Central Corridor, providing linkages to Burundi and Rwanda via barges on Lake Tanganyika to Bujumbura.

With regards to in-country transport networks, the railways and roads have provided the basis to exploit the productive potential of the places they transverse. Many of the in-country railway and road segments have helped to transport both industrial and agricultural inputs and outputs within the countries and toward the main network to the ports.

Over the years a number of events have combined to threaten the low cost transit transport and security objectives of the landlocked countries. These include the political instability in the landlocked countries since the mid-1970s, the collapse of the East African Community, the increase in traffic from the landlocked countries against the needs of the transit countries to maximize net earnings and/or minimize their infrastructure costs, and more recently, the closure of the Uganda/Rwanda border in 1990. Accordingly, transit routes which share infrastructure in the previously dominant two corridors, particularly road routes, have developed and traffic flow direction is now dictated mostly by the level of security, operational efficiency and state of road infrastructure and support facilities.

CURRENT ROUTES

The study has identified eight major routes that are currently in use for transit traffic transport within the region, four to Uganda three from Mombasa and one from Dar-es-Salaam and four to Rwanda and Burundi three from Dar-es-Salaam and one from Mombasa (Figure 1). A fifth route to Rwanda and Burundi, and the second from Mombasa, is the traditional Northern Corridor route via Malaba and Kampala that has been nonoperational since the closing of the Uganda/ Rwanda border in 1990. For each route an estimation of transit time from each port to the destination in landlocked countries (LLCs) is made, with the port transit time at Mombasa and Dar-es-Salaam estimated at 13 and 22 days respectively.

Uganda Routes

Mombasa to Kampala Railway Route (1331 km).

This is currently Uganda's principal route for its imports and exports. The route is served both by Kenya Railways Corporation (KRC) and Uganda Railways Corporation (URC) mainly through block trains once a week from Mombasa. It is estimated that the transit time on this route is seven to nine days from the port of Mombasa.

Mombasa Malaba Kampala Road Route (1170 km).

This road route, with transit time of about 10 days, is generally preferred due to the good quality of the network and availability of social amenities en route. However, there has been security and political problems hindering its usage by LLCs over time;

Mombasa Kisumu Kampala Rail/Lake Route (1148 kms).

This route, the only rail/lake route in Kenya, is essentially a branch route that leaves the main railway line at Nakuru and extends to Kisumu on Lake Victoria. This is now an alternative route to the all railway route to Uganda. However, its usage is increasingly diminishing due to the availability of quicker block trains via Malaba to Kampala that make this route, with an estimated transit time of 18 to 20 days, unattractive. It is noted that there is excess capacity among the wagon ferries now operating in Lake Victoria and more cargo can be taken along these routes if only the railways can increase their haulage; and

Dar-es-Salaam Mwanza Port Bell (Kampala) Rail/Lake Route (1680 kms).

At Port Bell, where operations began in 1986/87 using URC wagon ferries, the wagons are railed to

Kampala along a 9 km rail line connection commissioned in 1992. This is Ugandan only route through Dar-es-Salaam, and it has been indicated that Uganda would like to use it for as much as 60 percent of its export and imports despite the relatively longer transit time of 30 days between Dar-es-Salaam and Kampala.

Rwanda and Burundi Routes

Dar-es-Salaam via Isaka to Rwanda and Burundi Rail/Road Route (1512 kms to Kigali; 1854 kms to Bujumbura).

The rail section of the route from Dar-es-Salaam is operated by the Tanzania Railways Corporation (TRC) and ends at Isaka where there is a depot to facilitate interchange to road. From Isaka there is a paved highway in very good condition through Lushaunga to Rwanda and Burundi. The route, with a transit time of about 10 and 11 days respectively from Dar-es-Salaam, has been operational since 1992, but the Isaka interchange depot was commissioned in early 1994.

Dar-es-Salaam Kigoma Bujumbura Route Across Lake Tanganyika to Bujumbura (1430 kms).

At Kigoma transshipment is conducted onto Arnolac and Bartralac barges that are private companies operating vessels across the lake. Onward journeys to Kigali (1722 kms) are undertaken by road transporters. The transit times on this route to Bujumbura and Kigali are estimated at 15 and 19 days respectively.

Dar-es-Salaam Dodoma Singida Isaka Lushaunga Biharamulo road route (1529 kms to Kigali; 1821 kms to Bujumbura).

The transit times of about seven to eight days for both destinations. From Dar-es-Salaam the road is in good condition and paved to Dodoma. Beyond Dodoma, the road is gravel and in average condition. This poses problems during the rainy season and there are plans to upgrade it. The road joins the new road from Isaka to Biharamulo at Kahama, some 20 kms after Isaka; and

Mombasa Isebania Mwanza Biharamulo Route Through Northern Tanzania (1864 kms to Kigali; 2156 kms to Bujumbura).

Most of the road network within Kenya is paved and in good condition up to the Kenya/Tanzania border at Isebania. The rest of the road through Mwanza and Biharmulo is in poor condition. A number of contracts have been signed and upgrading and rehabilitation works are on going or about to start in most sections of the road within Tanzania. The transit times on this route is estimated at 17 to 20 days for both Kigali and Bujumbura.

POTENTIAL NEW ROUTES

It is considered that the potential alternative route from Mombasa is the rail/lake/road connection via Kisumu, and that Kemondo Bay has the greatest potential for ZBR cargo in the short to medium term. The greatest benefit of the route can be the use of road vehicles transshipments on to wagon ferries at Kisumu with onward journey from Kemondo Bay to LLCs on the same vehicles. A similar run using rail wagons instead of road vehicles on the wagon ferry would be slow, particularly from Kemondo Bay, but would also restrict the utilization of the established trucking capacity in these countries.

While the route has most infrastructure in place, its viability depends on the speed at which the road connection between Kemondo Bay and Biharamulo (160 Kms) in Northern Tanzania is improved. A feasibility study undertaken as part of the design of the road has not yielded an acceptable economic rate of return, implying that this road may not be paved within this decade. The only likely improvements will be sport repairs and re-gravelling. The Government of Tanzania has been urged to revise the Terms of Reference for the design study to include potential

traffic to be generated from Kisumu via Kemondo Bay, which was not included in the original study. This would raise the economic rate of return for the road.

OTHER MODES

While road/rail/lake routes are dominant within the region, other modes, namely air and oil pipeline transport, have their share of transit traffic.

Air Transport

There are no scheduled regional air freight/flights between the main airports at Mombasa, Nairobi, Dar-es-Salaam, Kilimanjaro, Bujumbura, Kigali and Entebbe. Regional air-cargo is mainly destined for European markets, with mainly horticultural products the bulk of the freight. Moreover, most of such cargo is freighted under scheduled passenger flights. Regionally, air transport is used on emergency cases to deliver food stuffs, medicine, and other urgently required relief supplies.

Pipeline Transport

The Oil Pipeline from Kenya Oil Refineries in Mombasa that carries white oil products to Nairobi, Kisumu and Eldoret has not realized its full use due to lack of an oil terminal jetty in Lake Victoria at Kisumu that would promote the use of oil barges across the lake. However, the Eldoret terminus is gaining popularity with transit oil tankers that are now taking short turns near the border for increased trips. The Kisumu terminus is also being used by oil tankers through Busia to Kampala.

Freight Flows

Mombasa port is the largest port in the East Africa region with a capacity to handle some 22 million tones of cargo annually, compared to 7 million tones at Dar-es-Salaam. In practice, however, the Mombasa port handled only 7 million tones in 1992 and 1993, compared with 5 and 3 million tones in Dar-es-Salaam during the same period.

While Mombasa handled 700,000 tones of cargo to ZBRU countries in both 1992 and 1993, Dar-es-Salaam handled only 350,000 and 580,000 tones respectively. Despite Mombasa being responsible for a significant amount of port handling in 1992 and 1993, Dar-es-Salaam has made significant inroads in capturing transit traffic over the years, particularly in respect to cargo for Rwanda, Burundi and Zaire.

It is noteworthy that transit traffic to ZBRU handled at Mombasa between 1987 and 1993 increased by only 19 percent, while Dar-es-Salaam recorded an increase of 202 percent for the same traffic during the same period. This was mainly as a result of the closure of the Rwanda/Burundi border in 1990, and the opening of Isaka transit depot in 1993, which allowed more transit traffic to go through Dar-es-Salaam. Dar-es-Salaam handled 76, 93, and 57 percent of imports to Rwanda, Burundi, and Zaire in 1993, compared to 20, 81, and 44 percent in 1987. The major import route to these countries is now the Isaka system that is almost fully developed except for TRC capacity limitations, and it is unlikely that significant reversal of this trend will occur.

It is also significant that exports from Burundi, notably coffee (averaging 30,000 to 35,000 tones a year) have traditionally been routed through Dar-es-Salaam, 90 percent in 1993, compared to 93 percent in 1987. Rwanda's exports, notably tea and coffee, have likewise been routed via Mombasa 98 percent in 1987 and 99 percent in 1993 partly because of easier accessibility of the all road route in the Northern Corridor, but also because Mombasa has established marketing channels for these commodities.

Thus the position of Mombasa as a transit port may be severely weakened in the next few years, except for Uganda, which has consistently used it for most of its imports (80 percent in 1987 and 94 percent in 1993) and exports (74 percent in 1987 and 89 percent in 1993). It is known, however that the Uganda Government has the objective to create capacity to move up to 60 percent of its imports through other routes, not only to achieve lower costs, but to increased transit security.

2. Major Issues in Transit Traffic

PORTS' INFRASTRUCTURE AND FACILITIES

The ports of Mombasa and Dar-es-Salaam have similar operational problems. These include rundown equipment, lack of preventive maintenance programs and poor management, this latter being the result of political rather than commercial orientation. Both ports also suffer from persistent late submission and incorrectness of pertinent vessel and/or cargo information resulting from lack of a unified information system, and low level of cooperation among players involved in the execution of ports procedures.

In addition to the common problems, Mombasa's port suffers from customs and security arrangements that accompany the clearance of goods, including verifications of containers, posting of security bonds for goods in transit, and police escorts, all of which contribute to delays and frustrations for port users particularly shippers and transport operators.

At Dar-es-Salaam, although delays occur, transit traffic is accorded priority, however it is the relatively high tariff level at that port that is the major concern for shippers and other port users. Dar-es-Salaam port charges are as much as 150 percent to 200 percent of the equivalent charges at the major ports in Eastern and southern Africa, including Mombasa, Maputo and Durban, the latter the largest and most efficient port in the region.

Delays at the port of Dar-es-Salaam are also the result of the underdeveloped telecommunication facilities within the port and between the port and the hinterland that are inadequate. Information provided is seldom timely and accurate, resulting in slow vessel turnaround, high storage charges, and general delays. Similarly the availability of only one shipping agent NASACO (National Shipping Agencies Company), and the monopoly enjoyed by the Agence Maritime Internaitonale (AMI) who doubles as both the manager of at least one berth, the Belbase, for ZBR cargo, and as a clearing and forwarding agent has not provided a basis for competition and cost-effectiveness.

It is also widely acknowledged that although the role of clearing and forwarding agents is crucial to the success of the ports, many of these personnel lack relevant training, certification and experience, and are not efficient, honest and fair in their dealings with port users, customs authorities, and the port authorities themselves.

CUSTOMS SERVICES

The cumbersome customs procedures at the ports are exacerbated with problems related to organization of customs services in respect of road traffic at the border ports with high traffic levels such as Busia, Malaba, Isebania, Rusumo, and the Isaka transshipment depot in Tanzania. These offices do not have appropriate infrastructure to serve the increasing volume of traffic and the customs personnel are inefficient due to lack of adequate training and motivation.

The locations of some of the offices are inappropriate, and in many cases the working hours of adjacent customs offices vary, which translates into prolonged waiting times at the border posts. Moreover, there are no adequate parking areas, and trucks park at both sides of the road or in front of the offices while waiting for the formalities to be completed.

It should be recalled that the same formalities completed at one exit post are repeated at the entry post of the neighboring country with all the monetary and time costs involved. These factors, which result in traffic jams at the border posts and increases costs

and transit times, are exacerbated by the lack of an adequate telecommunications network that would allow all custom offices to communicate with each other, as well as with their central administrations.

THE RAILWAY SYSTEM

Available statistics indicate that deteriorating operating conditions for Kenya Railways Corporation (KRC) have affected the rate of overall cargo off/take from the port of Mombasa. The reasons given for poor locomotive and wagon availability include lack of spare parts, poor maintenance practices, failure to earmark funds for repairs and poor planning of equipment acquisition.

These problems, which are exacerbated by the aging fleet of locomotives and rolling stock, a run-down track system and bridges, lack of proper coordination with Kenya Ports Authority (KPA) operations, poor interface with the lake services and lack of clear business orientation all lead to poor turnaround of locomotives and wagons, and delays in cargo flows. Freight tonnage hauled by KRC stood at 3.5 million tones in 1992, but is targeted to reach 3.8 million in 1996.

KRC's principal business share is largely the domestic market. Transit cargo, 550,000 tones in 1992, does not receive any special categorization, and there are no special facilities set aside to handle this component of cargo. The effect is that problems in the domestic cargo flows affect transit traffic movements. In order to enhance KRC's capacity to move more traffic on the Northern corridor, an investment of US$50 million is needed to improve rolling stock and infrastructure. However, no source of funding has been identified.

Within Uganda, most of the rail network is very old, and in general, the condition of the track remains poor. The Malaba Jinja Kampala line (251 kms) is generally in good condition except for some sections where the sleepers are worn out and require replacement. The entire line, however, requires reballasting.

The rehabilitation of the Kampala Jinja Malaba section is a top priority as the country's imports and exports are being routed via Malaba by the block train services. The ferry links on Lake Victoria between Port Bell/Jinja and Kisumu (Kenya) and Mwanza (Tanzania) form an integral part of the rail network. URC needs approximately US$100 million for its proposed projects until 1997.

URC rail freight traffic increased steadily from 263,615 tones in 1985 to 491,047 tones in 1990. In 1991 however, freight traffic declined to 415,913, but this increased to 485,705 in 1993. Much of URC rail traffic is external; the 421,721 tones of Uganda's external trade carried on the URC in 1990 amounted to 86 percent of URC's freight tonnage in that year. The volume of rail freight traffic is sustained by government policy that directs all coffee exports to be moved by rail. In 1990 for example, coffee exports through Malaba amounted to 141,703 tones, equivalent to 31 percent of the Malaba traffic, or 29 percent of the total rail traffic in that year. Cotton traffic which had declined over the past years is beginning to pick up as shown by a rise from 2,405 tones in 1990 to 7,433 tones in 1991.

Growth in the construction industry has resulted in iron and steel traffic reentering the list of commodities carried by rail. Similarly, URC marine freight amounted to 340,450 tones in 1990, 226,301 tones (66.5 percent) via Kisumu, and 114, 249 tones (33.5 percent) via Mwanza.

Much of the fixed infrastructure of TRC is old and requires replacement but, in the short term, the track is not the major constraint to increased performance. In recent years, tracks have been relayed, ballasting increased, and bridges strengthened or replaced. The port of Kigoma has recently been rehabilitated, and has considerable excess capacity. A number of other initiatives are being tackled under the ongoing World Bank-financed Railway Restructuring Program.

The rail/lake route from Dar-es-Salaam via Mwanza to Uganda began operations in 1986/87 using URC wagon ferries. TRC has experienced several capacity constraints on this route, and at one time URC hired some locomotives to TRC to help move cargo destined to Uganda. There have also been attempts to move cargo by road between Dar-es-

Salaam and Mwanza where it is transshipped to Uganda ferry wagons. However this attempt has been frustrated by the condition of the road between Dar-es-Salaam and Mwanza, parts of which have remained in very bad condition.

TRC freight tonnage has stagnated at around 1.0 million tones between 1988 and 1992. While freight tonnages carried on the railway system have declined from 933,000 tones in 1988 to 924,000 tones in 1992, marine tonnages increased three fold from 43,000 tones to 137,000 tones during the same period. The increasing marine tonnage is related to the growing significance of the rail/lake route via Mwanza to Uganda. However, it is observed that TRC has been unable to expeditiously move traffic on offer at the port of Dar-es-Salaam, thereby remaining a weak link in the Central Corridor. It is understood that despite the equipment owned and significant salary increases in 1992, TRC management does not yet fully portray commercial orientation and labor morale and motivation are very low.

ROAD FREIGHT TRANSPORT SYSTEM

The fast growth of road freight industry in the East Africa region from late-1960s to mid-1980s can be attributed to the substantial decline in the service standards and efficiency of the rail transport system. During these early years, road freight business was very lucrative and attracted both experienced and inexperienced transport operators into the industry.

Due to expansion in the industry, vehicle fleets have grown indiscriminately in quantity but not in technical standards. The involvement of inexperienced operators has led to poor management of trucks and the varied vehicle fleet models in the region has increased the problem of spare parts acquisition. The situation has led to high cost of road transport services to consumers in the region resulting in poor vehicle utilization and hence low returns on investment for operators.

Currently, a large proportion of the vehicle fleet in Kenya is involved only in domestic haulage. Much of the import traffic at Mombasa lands with a clearing and forwarding name tag for a company registered in the country to which the consignment is destined. Hence, vehicles from the landlocked countries are delivering transit cargo to their countries from Mombasa leaving Kenyan-based companies with little choice but to complete for domestic cargo.

The road freight vehicle fleet in Kenya is composed of very old vehicles, average 15 years old, whose operational efficiency is quite low, utilization of 50,000 to 60,000 kms a year. Although the industry was initially dominated by the parastatal KENATCO (Kenya National Transport Company), at present, the industry is in the hands of private owners and operators.

There are many vehicle models with varying capacities of as much as 60 tons. It is understood that vehicle operators are burdened by high administrative costs due to the recent high inflation rates while freight rates have stagnated due to competition in the industry. Despite these problems, the industry has continued to carry more than 70 percent of the total national freight, earning K£176 million in 1989, which rose to K£262 million in 1992, an increase of 49 percent in four years.

In Tanzania, fleet replacement has averaged 4 percent per year, which is inadequate compared to the more than 15 percent replacement rate estimated as appropriate under poor African road conditions. To overcome this situation, the government in 1990 negotiated with several international private investors to increase a capacity in road haulage by granting duty free importation of vehicles and related spare parts. This incentive coupled with the prospects of high profitability levels attracted major transport companies to invest in the road freight transport industry.

The lack of adequate restriction of axle load limits in Tanzania during the early 1990s also served as an encouragement for the new investors to bring in vehicles of high capacities, of as much as 60 tones, which would provide a basis for even higher profitability.

However, by 1994 the Tanzania Government had reintroduced duty on various aspects of haulage operations that translated into considerable increases in

operating costs. This, coupled with the increasing restriction in axle load limits, has had a tremendous effect on margins, impairing the capacity of these operators to comfortably meet their committed financial obligations. The strict enforcement of axle load limits on vehicles has also reduced permitted payload, thus affecting revenue potential, reducing operating margins further.

By June 1994, a number of Tanzanian-based operators had shifted their base of operations to Mombasa, focusing on ZBRU traffic. This move beefed up existing capacity in Mombasa and freight rates fell drastically due to increased competition.

Public sector participation in Uganda road freight industry is minimal, though there is one government-owned freight trucking and clearing company (Transocean (U) Ltd) and one cooperative union (The Uganda Cooperative Transport Union Ltd (UCTU)) that offer trucking services. In practice however, only the latter offers such services with the former relying on private subcontracting. Thus most of the transit traffic transportation is within the domain of private sector companies. These have been responsible for the transportation of most of the food stuffs, agricultural produce, livestock, and industrial products in the country, and of a significant amount of Uganda's imports and exports through Kenya.

But the perhaps the major problem facing road transport in the region is the condition of infrastructure, particularly along the routes through Tanzania to the LLCs. With the heavy investment made in the rehabilitating roads, the major emphasis must now be directed to adequate road maintenance and prevention of overloading, however, the problems of overloaded vehicles which threaten the benefits of road rehabilitation still persist. The main problem of axle load control is the lack of adequate legislation and enforcement equipment, however, every country in the region is understood to be concerned.

MARINE SERVICES

Lake services continue to play an increasingly important role in the movement of transit cargo, with Lake Victoria serving both the Central and Northern Corridors. In addition, Lake Tanganyika serves the Central Corridor. The problem is that there have not been coordinated lake services in the subregion. Services are not scheduled and ferries sail on demand. Operationally, it would appear that there are no major problems in the rail/lake interface, probably arising from the current excess capacity of the ferries. However, investment and rehabilitation of lake facilities has been minimal. This has led to deterioration of these facilities and lack of some basic equipment needed for safety and communications in marine operations.

It is understood that the lake services are run without internationally accepted standards necessary to ensure safety of life, navigation and prevention of pollution. There has also been cases of accidents arising from improper handling of ferries by unqualified personnel. Another major problem is the lack of an up-to-date and enforceable legislation to govern safe maritime activity particularly on Lake Victoria.

An inland waterway transport agreement providing minimum internationally accepted standards for the conduct of safe maritime activity that should form the basis of harmonized national legislation has been prepared, but not yet discussed. Moreover, the Permanent Technical Committee set up in 1990 by the Preferential Trade Area (PTA) Council of Ministers to formulate a coordinated development program on inland waterway transport has never become functional.

COORDINATION OF ZBRU TRAFFIC

There are also subregional, regional and continental organizations that influence the current structure and functioning of the transport industry. These include the Transit Transport Coordinating Authority (TTCA), the East African Cooperation Agreement (EACA), and the Eastern and Southern Africa Common Market (COMESA), all of which develop policy measures that act as checks on transport costs. The current problem in these organizations is the lack of political goodwill and financial support from some member countries they represent.

As the TTCA is charged with the coordination of transit traffic through the Northern Corridor, the closing of the Uganda/Rwanda border renders the traditional Northern Corridor route to Rwanda and Burundi not in operation with the implication that the TTCA role is currently limited to Uganda traffic, and that movement of the bulk of the transit traffic in the region is not coordinated by any specific authority. It also means that the former strict distinct categorization of the Northern and Central Corridors is no longer valid. Road routes emanate from Mombasa, but leave the traditional Northern Corridor route at various stages to join road connections from Dar-es-Salaam to Rwanda and Burundi. Currently there is no road connection to Rwanda and Burundi via the old Northern Corridor route. As it were, the role of the TTCA has shrunk as a coordinator of the Northern Corridor traffic.

3. Major Cost Components

Four major cost components have been identified as comprising the overall costs of transportation from the ports of Mombasa and Dar-es-Salaam to the landlocked countries.

PORT CHARGES

Since the revision of the port tariff in Dar-es-Salaam in September 1992, this port has become the most expensive transit port in the Eastern Africa, including Mombasa, Maputo and Durban. Indeed, the new tariff for the port of Mombasa that became effective in January 1995 is even more concessionary than the previous tariff that had been in use since July 1989. The high tariff at Dar-es-Salaam had a devastating effect on the port's traffic handling in 1993, a decline of 44 percent, from 5.1 million tones in 1992 to a mere 2.9 million tones.

In terms of relative costs, charges for transit traffic at Mombasa are only 43 percent and 45 percent of the equivalent charges at Dar-es-Salaam, for general cargo and containers, respectively. Similarly, domestic cargo rates at Dar-es-Salaam are about twice as much as the equivalent costs at Mombasa. This analysis does not include time costs related to inefficiencies and delays at each port.

CLEARING AND FORWARDING CHARGES

Most transit cargo from Mombasa inevitably crosses more than one border, as compared to transit traffic at Dar-es-Salaam where there is only one border crossing. The crossing of two border posts entails increased transactions both at Mombasa and the respective border posts. Similarly, the detailed involvement of CFAs in Mombasa including verification of containers, posting of security bonds , involvement with the police and escort convoys, cancellation of bonds, and general financing costs all combine to generate clearing and forwarding costs that are more than the equivalent costs at Dar-es-Salaam. It has been estimated that cost and freight charges could average as much as 6.5 percent of Cost, Insurance and Freight (CIF) at Mombasa compared to 3.5 percent of CIF at Dar-es-Salaam, which has relatively simpler procedures that are less cumbersome.

FREIGHT COSTS

By Route

The rail/lake connections between Dar-es-Salaam and Mwanza to Port Bell, and between Dar-es-Salaam and Kigoma to Bujumbura have the lowest freight rates for traffic to Uganda and Burundi respectively. Nonetheless, the Isaka rail/road system offers the greatest potential for Rwanda and Burundi cargo. The traditional Northern Corridor road route (now not in operation), although previously recognized as the most convenient transit route to the landlocked countries of Rwanda and Burundi, has currently no cost advantage over the Isaka rail/road system, which together with the Dar-es-Salaam - Kigoma rail/lake ferry connection are the most cost effective routes to Burundi and Rwanda. The Kigoma rail/ferry connection to Burundi is particularly cost effective for general cargo traffic. The proposed road/ferry alternative route from Mombasa via Kisumu and Kemondo Bay would have an overall lower cost structure, compared to the two routes in the Central Corridor.

By Mode

The freight costs related to the road mode are generally higher than the equivalent rail or rail/ferry combinations. The road freight costs are higher than rail because they include interalia transit charges payable by the transporter on transit which include transit goods licences, entry permits, transit bonds, border fees, temporary road licences, foreign vehicle permits, toll charges and foreign commercial licences selectively applied by different transit countries at varying levels, depending on whether the vehicle carrying cargo to the landlocked country is registered in that country, or in another country.

An analysis of these charges indicate that they amount to as much as 20 percent of the direct freight costs (11 to 14 percent of the total costs of transport). Nonetheless, roads in good condition, such as the Malaba route, are associated with costs tending toward the equivalent rail or rail/ferry costs.

Road transport operations within the region are also subject to police checks at makeshift road blocks operated by various police departments. It is understood that substantial sums of money are paid unofficially and corruptly to police officers manning these road blocks in the pretext of enforcing road traffic regulations. For example, drivers spend as much as US$20 between Mombasa and Malaba. Road transporters have also been prosecuted and fined large sums of money or have corruptly paid their way because of overloading.

General Cargo vs. Containers

General cargo rates and those applicable for containers are fairly similar for each transit route in the region consequently, container traffic does not benefit from the concept of containerization particularly for importers. When containerization was introduced in East Africa in 1965, necessary handling equipment was installed at both the ports of Dar-es-Salaam and Mombasa to facilitate the speedy handling and movement of container traffic. However, these equipment and facilities have been outstripped by the increasing containerized traffic. Additionally, at Mombasa, containers are sometimes stripped. At Dar-es-Salaam, the stacking areas are several kilometers from the port this local movement is costly to the shipper.

Finally the charges related to demurrage of containers in transit, and the costs related to the return of empty containers, all combine to increase the costs of containerization in the region, with no benefits accruing to the importer. Indeed, there are instances in this study in which it has been found that the overall cost of transportation of containerized traffic is higher than the equivalent costs of general cargo movement.

Costs Due to Inefficiency and Delays in Transit

It is assumed that for each consignment, the importer has a normal budgeted transit time for purposes of planning, 12 days for Uganda, and 15 days for both Rwanda and Burundi. On this basis, all the routes in the region exhibit average transit times in excess of the budgeted transit time. It is argued that the excess transit time can be related to excess funding costs, assuming cost of working capital at 20 percent and inflation at 20 percent.

These additional costs have been estimated to be between US$111 and US$597 for a 40-ton general cargo consignment for all four Uganda routes, and between US$139 and US$426 for all the routes to Rwanda and Burundi. These ranges are fairly similar for containerized traffic to the three countries.

4. Total Costs of Transportation

The analysis provided in this study indicates that there is a fairly uniform cost pattern for all the four routes to Uganda, with no clear cost advantage for any, although container traffic appears to be slightly more expensive. However, the cost patterns for routes to Rwanda and Burundi vary widely, with the Isaka rail system being perhaps the most cost effective transit route for all categories of cargo.

The rail/lake Kigoma connection is also preferable for Burundi traffic. As is clear, these cost patterns favor the Tanzania routes, with the traditional Northern road route to Rwanda and Burundi having no cost advantage but remaining a competitive road route if it were to be reopened because of its established infrastructure.

RECOMMENDATIONS

At present, the landlocked countries (LLCs) pay up to 90 percent of CIF value of imports assuming US$10,000 CIF value and weight of 40 tones as total transportation costs of their cargo. The effort is to reduce this proportion in the context of developing low cost routes. Similarly, transit security in a region so dependent on imports for its lifeline would be achieved, only to the extent that cargo movement is not tied to one port, route or mode, such that cargo flow is not disrupted by external factors.

In Eastern Africa, transit security depends on two factors: the access to both ports of Mombasa and Dar-es-Salaam, and the availability of both rail or rail/ferry and road modes of transport. These two objectives have been difficult to reconcile because the diversification of routes and modes to ensure a steady flow of cargo often negates the low cost considerations. Any recommendations made to achieve the objectives of the LLCs must also recognize the objectives of the transit countries that relate to the minimization of their infrastructure costs. In the following paragraphs we enumerate some key issues that need to be addressed in order to make transit traffic cost effective and routes and modes more competitive.

There is little doubt that additional investment in infrastructure is a priority to the solutions of the low cost objectives of the LLCs. However, additional investment will only be justified by traffic levels, and it is clear that the transit countries will not make investments just on the basis of projected transit traffic levels, because the routing decisions of this traffic remain unpredictable and are influenced by factors outside the control of the transit countries.

The LLCs have also lacked initiative that would assure the transit countries of their longer-term commitment to routing decisions. In this context, many investment decisions will be viewed as risky on individual country basis, and their implementation will not be achieved unless they are recognized as regional projects, and coordinated at that level, through donor support.

Notwithstanding the investment needs, it does appear that additional investments in infrastructure in the region will not necessarily provide more capacity, or provide a basis for lower costs, or make major improvements in the transit system, and that maintenance and preservation of the existing infrastructure must be the main priority, through better management and technical assistance.

THE PORTS OF MOMBASA AND DAR-ES-SALAAM

The first important step in enhancing efficiency at both the ports is to initiate a comprehensive preventative maintenance program, with the objective of

keeping port equipment in running order instead of spontaneous breakdown repairs. Such a program should be ideally contracted out to several and separate private managements that would also provide a basis for competition within the ports. Notwithstanding the reorientation of maintenance management, the general management of both the ports need to be more commercially orientated, with managers being appointed on the basis of their professional backgrounds, rather than on political considerations.

The ports must also be transformed to act more as focal points for coordinating all efforts aimed at rendering quality services with regard to transit traffic rather than simply pursuing the traditional role of ports that were confined to loading and discharging of goods to-and-from vessels.

The port authorities need to interact more closely, and to play a leading role with different major players in the transportation chain, including the shipping agents, clearing and forwarding agents, transport operators, custom officials, and shippers. Unless this is done, the efforts of each player remain piecemeal, with the effect of an overall poor level of port service.

The new orientation, coupled with improved operating procedures, training, remuneration of labor, information flows and safety procedures, will go along way in enhancing the overall performance of the ports even at the current levels of investment in infrastructure. This coordination role will also facilitate consultation with key players in ports so that important decisions such as tariff issues are not arrived at arbitrarily.

As a basis for strengthening the role of the KPA and THA as coordinators of various actors in the transportation chain, there is need for a unified information system within the ports so that shipping and cargo information can be shared. This would involve computerizing the individual activities at the ports (as is already proposed for Mombasa) and linking the information of the various activities. Similarly, direct phone and fax communication between the transit countries (particularly Tanzania) and the Landlocked countries should also be ensured to facilitate the notification of bills and other necessary documents in this manner.

CLEARING AND FORWARDING ISSUES

The role of clearing and forwarding agents is crucial to the success of the ports, and yet current procedures for licensing personnel do not involve port authorities and the vetting of basic requirements of their trade. It is recommended that in the future, KPA and THA take a more active role in training personnel so that training, currently being offered at Bandari College, is more focused, structured and certificated, and becomes the basis for licensing.

It has been suggested that a CFA should be subjected to as many as five years apprenticeship in the clearing and forwarding of domestic cargo before they are certified to handle transit traffic. It would also be beneficial to port authorities, in their efforts to address the cumbersomeness of customs procedures and regulations, to effectively review CFA operations by enforcing a code of conduct and penalties as a basis for improved port operations. For the port of Dar-es-Salaam, it is recommended that the Government of Tanzania should liberalize clearing, forwarding and the shipping agency businesses as a basis for fostering competition and improved service quality, particularly where AMI and NASACO are involved.

CUSTOMS PROCEDURES

Customs procedures are widely reported to be cumbersome at both ports of Mombasa and Dar-es-Salaam, particularly for Mombasa where customs verification, transit bonds and other requirements have been cited as bottlenecks. The TTCA and other stakeholders have proposed harmonized procedures and requirements such as the Transit Pass or PTA regional bond guarantee. A rapid release system for containers is also currently being implemented with more proposals for curbing fraud. A study on customs fraud and traffic diversion in the Northern Corridor, proposed since 1991, was finally implemented in January 1995 with EEC funding.

There is also a need to carry out infrastructure development and modification, especially at the high

traffic posts at Malaba, Busia and Isebania, which can not be executed due to lack of funds. In addition, an adequate telecommunications network within the customs departments has been proposed to enable speedy communication between customs offices and their central administrations. The implementation of such a project requires a study and financial support.

THE RAILWAY SYSTEMS

Continued rehabilitation of the railway network and rolling stock are a priority in East Africa, and the donor community has been very responsive to improvement of infrastructure and facilities. However, total funding is always lacking. It is estimated that KRC alone requires US $50 million in order to enhance its capacity to move more traffic, such as the upgrading of the Nakuru—Kisumu branch line. URC needs US $100 million for its proposed projects besides the fleet of 400 new wagons received and 1000 wagons rehabilitated since 1992. Priority projects identified for URC include the rehabilitation of the Kampala—Malaba and the Kampala—Kasese branch lines.

In TRC, some of the problems are being tackled by the ongoing World Bank-financed Railway Restructuring Program (RRP), through infrastructure rehabilitations, improved capacity, operations performance and financial targets. TRC has acquired a container stacking crane (through Belgian financing in 1993) to improve handling facilities. TRC has also secured funds from EEC for the development of the Isaka Inland Transit Depot. Despite these efforts, improvement in communication between the ports and the landlocked countries—i.e., the Advance Cargo Information Systems (ACIS)— is still a priority.

It is acknowledged however, that additional investment alone will not improve capacity. There is a strong case for better management practices that should be advocated by governments, donors and employees of organizations concerned. This should involve the restructuring of the railway organizations, gearing railways to commercial operations, regular reviews of operational performance parameters, organizational structure investments and the management of finances.

It is suggested that KRC divest its interests in wagons and telecommunications and remain more concerned with the management and provision of locomotives. In this way, the private sector would own wagons and interface with KPA directly.

Increased cooperation and coordination between KRC and URC, and between TRC and URC is another priority area; it will raise capacity and quality of rail services. Such cooperation has been achieved to some extent; URC now holds separate monthly meetings with KRC and TRC, and some form of agreements or memoranda of understanding exist. The coordination among railways in the region should also be emphasized between them and the major key players in the transportation chain, including ports, CFAs, customs and other multi-modal and service agencies. There should be development of inter-railway marketing and forwarding arrangements to avoid duplications and to provide for mutual revenue collections. Harmonized transportation plans and coordination of activities with road/marine transport should also be initiated.

MARINE SERVICES

There have been successful experiments in the utilization of ferries between Kisumu and Kemondo Bay in Lake Victoria to carry trucks and trailers loaded with transit traffic destined for Rwanda and Burundi. This transportation route is a major area of potential for increasing ferry utilization and should be explored and actively marketed. It calls for the improvement of the hinterland roads to-and-from the Bukoba—Biharamulo road, from the Kemondo Bay ferry terminal. Other issues to be addressed should include:

- The proposal to establish autonomous marine sections within URC, KRC and TRC that have been on record since the early 1980s, should be accorded more serious thought. In the first instance, a study on the modalities should be un-

dertaken for the establishment of a regional organization to operate ferry services on Lake Victoria. The study should include traffic levels, the structure and scope of the regional organization, funding levels, source of funds, and manpower requirements.

- The TOR for the design and upgrading of the Kemondo Bay—Biharamulo road should be reviewed by the Government of Tanzania to include the potential traffic via Kisumu and Kemondo Bay. The upgrading of the road has attracted the interest of several donors, including the African Development Bank (ADB), but the limitations of a low Internal Rate of Return (IRR) has delayed firm commitment. Donors and international organizations such as the European Development Fund (EDF), the United Nations Development Program (UNDP), the Danish International Development Agency (DANIDA) and the United Nations Conference of Trade and Development (UNCTAD) have been asked assist in this implementation of this proposal, including the funding of the proposed investment studies to justify the exploitation of the route.

ROAD TRANSPORT

Overloading is a major factor of road transport in the region. This is causing premature deterioration of the road network. The various governments have been urged to monitor the importation of trucks and local assembly to ensure conformity with the relevant regulations on axle loads and vehicle dimensions. This will alleviate road transport costs and infrastructure damage. The action calls for organization of sensitization seminars for road haulers to examine the relationship between transport costs, overloading and road deterioration, and the need for axle load controls.

The formation of a group of experts on road infrastructure has been proposed by the Transit Transport Coordination Authority (TTCA), and UNCTAD has sponsored a study to assist in its formation. Among other things, the study reviews the functioning of the Southern African Transport Coordinating Conference (SATCC) working group on road infrastructure with a view to forming a similar group of experts. The task for the proposed working group would typically include the identification of subregional road sector projects, review of road design standards and specifications, formulating strategies, updating road inventory, and promoting road safety measures on international transit routes.

The UNCTAD study showed that technical assistance is critical for the effectiveness of the working group. Donor support will be required for various activities. Initial negotiations with potential donors to finance the road inventory and technical assistance program have been suggested, with UNCTAD and UNDP being requested to coordinate donor contacts. TTCA has presented a proposal to the EEC for a road management study, for financing from the balance of funds allocated under the Lome III program to which EEC has already agreed.

Member states have also been urged to accelerate measures to establish adequate road maintenance funds from user charges. The ideal is to have an interministerial committee in each country consisting of representative from public works, finance, transport and economic planning. The committee will ensure the success of road maintenance through user charges. This should go hand-in-hand with continuous traffic surveys in each country and in the region at large.

COMPETITION IN THE ROAD SECTOR

Increased competition among in-country transport operators as well as intercountry operators is a priority in the region as a basis of reducing the current high cost of road transport operations. However, this may not be achieved unless the issues that govern road transport costs are known. This calls for a regional study on road transport costs to address the issue of vehicle models operating in the region, now thought to be too many for specialized and high quality maintenance. The study should also:

- address the possibility of harmonizing duty on imported vehicles and spare parts for the ap-

proved vehicle models, and analyzes optimal truck engine capacity, fuel consumption patterns, and the issue of fuel costs, duty and taxes;

- examine the extent of government protection on certain transport operators in the region; and
- make recommendations for alleviating market distortions for implementation by the national governments objective of reducing road transport costs in the region.

REGIONAL COOPERATION

The member states of the Northern Corridor Transit Agreement (NCTA) should review the constitution of the NCTA to include Tanzania and the Central Corridor routes. In addition, the member states should authorize the role of the TTCA to include coordination of all transit traffic in the region. The TTCA should also be charged with the responsibility to monitor the implementation of any protocols, conventions or resolutions of the Sub-Saharan African organizations such as the Common Market for Eastern and Southern Africa (COMESA) and the East Africa Cooperation Agreement (EACA).

The TTCA should also work mutually with other national bodies, including the truckers associations such as the Kenya Transport Association (KTA), and clearing and forwarding associations such as the Tanzanian Association of Freight Forwarders (TAFFA), in order to promote better management and operational practices of transit traffic. Finally, the TTCA should continue to coordinate studies that have impact on transit traffic, including a study toward the establishment of a data bank to facilitate an information system for transit traffic in the region. A number of these studies were identified in the TTCA's work plan for 1993/1994, and funds were being sought.

TRAINING

Among the roles proposed for the expanded TTCA, training should occupy a central place. Seminars on customs and other transit procedures that respond to the need of exporters and importers and other stakeholders in transit traffic appear to be a priority. Already the TTCA has organized such seminars through the assistance of UNDP and UNCTAD, attended by economic operators from both the public and the private sectors and representatives from embassies of member states and delegates from subregional organizations. Although the TTCA has planned a number of other seminars during the last several years, many of them have not come to fruition because of lack of funds.

5. Route Options

UGANDA

Uganda is partly dependent on the capacity of the KRC and URC to move its cargo, and partly on the road haulage industry, both in Kenya and Uganda. The further priority to increase cooperation and coordination between KRC and URC to raise capacity and quality of rail services cannot be over emphasized. Increased rail movement capacity and efficiency such as evidenced by block trains and commissioning of Internal Container Depots (ICDs) at Kisumu and Eldoret, could divert a substantial volume of traffic to rail. In this way, transport costs to Uganda will be reduced, the financial position of the railways would be increased and damage to roads in both countries would be reduced.

Uganda will continue to use the road connection via Malaba and the rail/ferry connection via Mwanza as its principal security routes. For this latter route, the major constraint is the limited TRC capacity to move cargo between Dar-es-Salaam and Mwanza, and the condition of the road route between the two centers.

The TRC capacity will be further constrained when the Isaka system is fully developed as the principal route between Dar-es-Salaam and Rwanda and Burundi. Therefore, the achievement of transit security via Dar-es-Salaam implies that the road route between Mwanza and Dar-es-Salaam is fully rehabilitated, and the wagon ferry network reorganized to accept both trucks and rail wagons. In the case of the Malaba road, transit security will only be achieved through additional costs.

RWANDA AND BURUNDI

The present trend of having increased transit traffic to ZBR going through Dar-es-Salaam is likely to increase even further in the short term. Currently, most of this traffic is handled through Isaka and Kigoma, both of which are served by TRC due to lack of good road connections from Dar-es-Salaam.

In many respects, increased movement capacity and improved operating efficiency on the TRC are key to the strategy of meeting many of the objectives of Rwanda and Burundi. For both countries, the objectives of low cost transport is likely to be achieved by the efficient operations through the rail/road Isaka route.

For Burundi, TRC offers additional capacity via Kigoma. The increasing traffic via Dar-es-Salaam has already sent signals to the Kenya Government to streamline port operations at Mombasa and improve rail services.

TRC capacity constraints mean that Rwanda and Burundi will continue to seek transit through the Mombasa port to achieve transit security. However, the only current operating route from Mombasa to Rwanda and Burundi is the road route via Isebania, which has no comparative cost advantage to the proposed alternative rail/ferry/road route via Kisumu and Kemondo Bay. The rehabilitation and upgrading of the Isebania road is, however, ongoing. It is probable that this will place a downward pressure on the transport costs along it. If, however, the Rwanda— Uganda border were to be reopened, the traditional Northern Corridor, from Mombasa via Malaba to the landlocked countries, would constitute the principal alternative route to the Dar-es-Salaam-based routes.

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